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Amendment to the Claims;

Cancel claims 1-5.

6. (new) A process of design of the preset strength safety level concrete pavement for airports less by 5-10% of thickness than the thickness of this pavement provided by the Portland Cement Association Bulletin EB050P thickness design procedure, reduction of thickness being by more complete utilization of flexural strength of concrete considered as a random value than that provided by said Portland Cement Association Engineering Bulletin EB050P and design practice of utilization of this strength, wherein mix design of concrete of pavement is determined by the 90-day value of modulus of rupture (MR) required by the thickness design according to said Portland Cement Association Engineering Bulletin EB109P thickness design procedure and equal to the mean value of 28-day flexural strength increased by 10%, more complete utilization of flexural strength of concrete is provided by the thickness design of pavement according to said Portland Cement Association Bulletin EB050P or according to the requirements of the customer with the consecutive use of a plurality of values of modulus of rupture of concrete (MR) exceeding the mean value of 90 day flexural strength, increase of value of modulus of rupture with the corresponding increase of design strength provides reduction of thickness of pavement, the sufficiency of estimations of thickness of pavement corresponding to these values of modulus of rupture being compared against results of fatigue analysis of this pavement, fatigue

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analysis of pavement regardless of traffic loads, and volumes expected during the design life of the pavement being carried out according to the most detailed version of said Portland Cement Association Engineering Bulletin EB050P thickness design procedure or other methods of thickness design according to the requirements of the customer.

7. (new) A process as claimed in claim 6 wherein an airport concrete pavement for critical areas of airport of the preset strength safety level corresponding to the value of strength safety index  $\beta$  equal at least to about 3 and the thickness less by 8-10% than that provided by the current Portland Cement Association thickness design procedure, more complete utilization of flexural strength of concrete being provided by the consecutive use for thickness design of three values of 90-day modulus of rupture of concrete (MR) with the difference of 50 psi considered corresponding to the one value of 28 day specified compressive strength of this concrete  $f'_c$ , the least of these three values of modulus of rupture being the value of 90-day modulus of rupture (MR) required according to said Portland Cement Association Engineering Bulletin EB 050P thickness design procedure, wherein any of these three values of modulus of rupture of concrete (MR) can be used for thickness design of said pavement if estimation of strength safety of pavement of the safety factor in the range from 1.7 to 2.0 designed with the use of this value of modulus of rupture corresponds to the value of strength safety index  $\beta$  equal at least to about 3.

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8. (new) A process as claimed in claim 6 wherein an airport concrete pavement for non-critical areas of airport of the preset strength safety level corresponding to the value of strength safety index  $\beta$  equal at least to about 3 and the thickness less by 5-10 % than the thickness of this pavement provided by the current Portland Cement Association design procedure more complete utilization of flexural strength of concrete being provided by the consecutive use for thickness design of three values of 90-day modulus of rupture of concrete (MR) with the difference of 50 psi considered corresponding to the one value of 28-day specified compressive strength of this concrete  $f_c'$ , the least of these three values of modulus of rupture just corresponding to this value of 28-day specified compressive strength is the value of 90-day modulus of rupture (MR) required according to said Portland Cement Association Engineering Bulletin EB 050P thickness design procedure, wherein any of these three value of modulus of rupture of concrete (MR) can be used for thickness design of claimed pavement if estimation of strength safety of pavement of the safety factor in the range from 1.5 to 1.7 designed with the use of this value of modulus of rupture corresponds to the value of strength safety index  $\beta$  equal at least to about 2.5.

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9. (new) A process of estimation of capacity of existing airport concrete pavement with more complete utilization of flexural strength of concrete than that which was provided by the Portland Cement Association Engineering Bulletin EB 050P thickness design procedure of utilization of 90-day flexural strength of this concrete at the time of design of this pavement by the use of values of modulus of rupture exceeding the mean value of flexural strength for fatigue analysis of pavement taking into account the age of said existing concrete, according to said Portland Cement Association Engineering Bulletin EB 050P modulus of rupture of 90-day concrete is equal to the mean value of 28-day flexural strength increased by 10% whereas mean value of flexural strength of concrete of age 3 years and more is estimated as 120% of 28-day of this concrete, more complete utilization of flexural strength of concrete is provided by the consecutive use for thickness design of three values of modulus of rupture of concrete (MR) with the difference of 50 psi considered corresponding to the one value of 28-day specified compressive strength of this concrete  $f'_c$ , the least of these three values of modulus of rupture being the mean value of flexural strength, wherein any of these three value of modulus of rupture of concrete (MR) can be used for fatigue analysis of pavement if estimation of strength safety of pavement designed with the use of this value of modulus of rupture corresponds to the value of strength safety index  $\beta$  equal at least to about 3 as applied to critical areas of said airport, and about 2.5 as applied to non-critical areas of said airport, fatigue analysis of said pavement regardless of forecast of traffic loads and volumes expected during the

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pavement's design life being provided according to the most detailed version of said Portland Cement Association Engineering Bulletin EB 050P or other methods of fatigue analysis according to the requirements of the customer.

10. (new) A process for design of concrete pavement of a preset strength safety level

wherein the mix design of concrete of said pavement is determined by the 90-day modulus of rupture required according to the Portland Cement Association Engineering Bulletin EB050P thickness design procedure and equal to the mean value of 28-day flexural strength increased by 10% comprising:

calculation of the thickness of said pavement including consecutive use of a plurality of values of modulus of rupture (MR) exceeding the mean value of 90-day flexural strength of said concrete wherein an increase in design strength permits a reduction in the thickness of said pavement.

11. (new) A process as claimed in claim 10 wherein said calculation is compared against said Portland Cement Association Engineering Bulletin EB050P thickness design procedure.

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12. (new) A process as claimed in claim 10 wherein the results of said calculations are compared against known methods of thickness design as required by the customer for fatigue and analysis.

13. (new) A process for design of concrete pavement of a preset strength safety level

wherein mix design of concrete of said pavement is determined by the 90-day modulus of rupture required according to the Portland Cement Association Engineering Bulletin EB050P thickness design procedure and equal to the mean value of 28-day flexural strength increased by 10% or other known methods of thickness design comprising:

consecutive use of a plurality of values of modulus of rupture of concrete (MR) exceeding the mean value of 90-day flexural strength of said concrete wherein an increase of the value of modulus of rupture with a corresponding increase in design strength permits a reduction in thickness of said pavement;

said estimates of thickness of pavement corresponding to the said values of modulus of rupture being compared against said Portland Cement Association Engineering Bulletin EB050P thickness design procedure or said other known methods of thickness design for fatigue analysis.